

0420
03/14/01

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/781,077

DATE: 03/08/2001

TIME: 11:48:37

Input Set : A:\00-18seq.txt

Output Set: N:\CRF3\03082001\I781077.raw

ENTERED

```

3 <110> APPLICANT: Holloway, James L.
4   Lok, Si
5   Jaspers, Stephen R.
7 <120> TITLE OF INVENTION: Insulin Homolog Polypeptide Zins4
9 <130> FILE REFERENCE: 00-18
C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/781,077
C--> 11 <141> CURRENT FILING DATE: 2001-02-09
11 <150> PRIOR APPLICATION NUMBER: 60/188,544
12 <151> PRIOR FILING DATE: 2000-03-10
15 <160> NUMBER OF SEQ ID NOS: 12
17 <170> SOFTWARE: FastSEQ for Windows Version 3.0
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 429
21 <212> TYPE: DNA
22 <213> ORGANISM: Homo sapiens
24 <220> FEATURE:
25 <221> NAME/KEY:..CDS.
26 <222> LOCATION: (1)...(429)
28 <400> SEQUENCE: 1
29   atg gcc agg tac atg ctg ctg ctg ctc ctg gcg gta tgg gtg ctg acc      48
30   Met Ala Arg Tyr Met Leu Leu Leu Leu Leu Ala Val Trp Val Leu Thr
31   1           5           10          15
33   ggg gag ctg tgg ccg gga gct gag gcc cgg gca gcg cct tac ggg gtc      96
34   Gly Glu Leu Trp Pro Gly Ala Glu Ala Arg Ala Ala Pro Tyr Gly Val
35   20          25          30
37   agg ctt tgc ggc cga gaa ttc atc cga gca gtc atc ttc acc tgc ggg      144
38   Arg Leu Cys Gly Arg Glu Phe Ile Arg Ala Val Ile Phe Thr Cys Gly
39   35          40          45
41   ggc tcc cgg tgg aga cga tca gac atc ctg gcc cac gag gct atg gga      192
42   Gly Ser Arg Trp Arg Arg Ser Asp Ile Leu Ala His Glu Ala Met Gly
43   50          55          60
45   gat acc ttc ccg gat gca gat gct gat gaa gac agt ctg gca ggc gag      240
46   Asp Thr Phe Pro Asp Ala Asp Ala Asp Glu Asp Ser Leu Ala Gly Glu
47   65          70          75          80
49   ctg gat gag gcc atg ggg tcc agc gag tgg ctg gcc ctg acc aag tca      288
50   Leu Asp Glu Ala Met Gly Ser Ser Glu Trp Leu Ala Leu Thr Lys Ser
51   85          90          95
53   ccc cag gcc ttt tac agg ggg cga ccc agc tgg caa gga acc cct ggg      336
54   Pro Gln Ala Phe Tyr Arg Gly Arg Pro Ser Trp Gln Gly Thr Pro Gly
55   100         105         110
57   gtt ctt cgg ggc agc cga gat gtc ctg gct ggc ctt tcc agc agc tgc      384
58   Val Leu Arg Gly Ser Arg Asp Val Leu Ala Gly Leu Ser Ser Ser Cys
59   115        120        125
61   tgc aag tgg ggg tgt agc aaa agt gaa atc agt agc ctt tgc tag /      429
62   Cys Lys Trp Gly Cys Ser Lys Ser Glu Ile Ser Ser Leu Cys *
63   130        135        140
66 <210> SEQ ID NO: 2

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67 <211> LENGTH: 142
68 <212> TYPE: PRT
69 <213> ORGANISM: Homo sapiens
71 <400> SEQUENCE: 2
72 Met Ala Arg Tyr Met Leu Leu Leu Leu Leu Ala Val Trp Val Leu Thr
73 1 5 10 15
74 Gly Glu Leu Trp Pro Gly Ala Glu Ala Arg Ala Ala Pro Tyr Gly Val
75 20 25 30
76 Arg Leu Cys Gly Arg Glu Phe Ile Arg Ala Val Ile Phe Thr Cys Gly
77 35 40 45
78 Gly Ser Arg Trp Arg Arg Ser Asp Ile Leu Ala His Glu Ala Met Gly
79 50 55 60
80 Asp Thr Phe Pro Asp Ala Asp Ala Asp Glu Asp Ser Leu Ala Gly Glu
81 65 70 75 80
82 Leu Asp Glu Ala Met Gly Ser Ser Glu Trp Leu Ala Leu Thr Lys Ser
83 85 90 95
85 Pro Gln Ala Phe Tyr Arg Gly Arg Pro Ser Trp Gln Gly Thr Pro Gly
86 100 105 110
87 Val Leu Arg Gly Ser Arg Asp Val Leu Ala Gly Leu Ser Ser Ser Cys
88 115 120 125
89 Cys Lys Trp Gly Cys Ser Lys Ser Glu Ile Ser Ser Leu Cys
90 130 135 140
92 <210> SEQ ID NO: 3
93 <211> LENGTH: 14
94 <212> TYPE: PRT
95 <213> ORGANISM: Artificial Sequence
97 <220> FEATURE:
98 <223> OTHER INFORMATION: Cysteine motif
100 <221> NAME/KEY: VARIANT
101 <222> LOCATION: (3)...(13)
102 <223> OTHER INFORMATION: Each Xaa is independently any amino acid residue
103 except cysteine.
105 <400> SEQUENCE: 3
W--> 106 Leu Cys Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys
107 1 5 10
109 <210> SEQ ID NO: 4
110 <211> LENGTH: 15
111 <212> TYPE: PRT
112 <213> ORGANISM: Artificial Sequence
114 <220> FEATURE:
115 <223> OTHER INFORMATION: Motif
117 <221> NAME/KEY: VARIANT
118 <222> LOCATION: (3)...(5)
119 <223> OTHER INFORMATION: Each Xaa is independently any amino acid residue
120 except cysteine.
122 <221> NAME/KEY: VARIANT
123 <222> LOCATION: (4)...(14)
124 <223> OTHER INFORMATION: Each Xaa is independently any amino acid residue
125 except cysteine.

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```

127 <400> SEQUENCE: 4
W--> 128   Cys Cys Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys
      129     1           5           10           15
131 <210> SEQ ID NO: 5
132 <211> LENGTH: 5
133 <212> TYPE: PRT
134 <213> ORGANISM: Artificial Sequence
136 <220> FEATURE:
137 <223> OTHER INFORMATION: Motif
139 <221> NAME/KEY: VARIANT
140 <222> LOCATION: (2)...(4)
141 <223> OTHER INFORMATION: Each Xaa is independently any amino acid residue
142     except cysteine.
144 <400> SEQUENCE: 5
W--> 145   Arg Xaa Xaa Xaa Arg
      146     1           5
148 <210> SEQ ID NO: 6
149 <211> LENGTH: 426
150 <212> TYPE: DNA
151 <213> ORGANISM: Artificial Sequence
153 <220> FEATURE:
154 <223> OTHER INFORMATION: Degenerate polynucleotide sequence encoding the
155     polypeptide of SEQ ID NO:2.
157 <221> NAME/KEY: variation
158 <222> LOCATION: (1)...(426)
159 <223> OTHER INFORMATION: Each N is independently A, T, G, or C.
161 <400> SEQUENCE: 6
W--> 162   atggcnmgnt ayatgytnyt nytnytnytn gcngtntggg tnytnacngg ngarytntgg      60
W--> 163   ccnggngcng argcnmgngc ngcnccntay ggngtnmgny tntgyggngm ngarttyath      120
W--> 164   mgngcngtna thttyacntg yggnggnwsn mgntggmgnm gnwsngayat hytngncay      180
W--> 165   gargcnatgg gngayacntt ycengaygcn gaygcngayg argaywsnyt ngcngnggar      240
W--> 166   ytngaygarg cnatgggnws nwsngartgg ytngchnytna cnaarwsncc ncargcntty      300
W--> 167   taymgnggnm gncnwsntg gcarggnacn ccnggngtny tnmngngnws nmnggaygtn      360
W--> 168   ytngcnggny tnwsnwsnws ntgytgyaar tggggntgyw snaarwsnga rathwsnwsn      420
W--> 169   ytntgy
      171 <210> SEQ ID NO: 7
      172 <211> LENGTH: 25
      173 <212> TYPE: DNA
      174 <213> ORGANISM: Artificial Sequence
      176 <220> FEATURE:
      177 <223> OTHER INFORMATION: Oligonucleotide ZC9736
      179 <400> SEQUENCE: 7
      180   ccatacccct gacccctggt gagat
      182 <210> SEQ ID NO: 8
      183 <211> LENGTH: 25
      184 <212> TYPE: DNA
      185 <213> ORGANISM: Artificial Sequence
      187 <220> FEATURE:
      188 <223> OTHER INFORMATION: Oligonucleotide ZC9740

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190 <400> SEQUENCE: 8
191  cagaggttcc ctgataccca cacat                25
193 <210> SEQ ID NO: 9
194 <211> LENGTH: 55
195 <212> TYPE: DNA
196 <213> ORGANISM: Artificial Sequence
198 <220> FEATURE:
199 <223> OTHER INFORMATION: Exon 1 sense oligonucleotide primer
201 <400> SEQUENCE: 9
202  tgaagaaggtc tcgaattcgt cgacaccatg gccagggtaca tgctgctgct gctc        55
204 <210> SEQ ID NO: 10
205 <211> LENGTH: 45
206 <212> TYPE: DNA
207 <213> ORGANISM: Artificial Sequence
209 <220> FEATURE:
210 <223> OTHER INFORMATION: Exon 1 antisense oligonucleotide primer
212 <400> SEQUENCE: 10
213  tgaagaagggt ctactccca tagcctcgtg ggccaggatg tctga                45
215 <210> SEQ ID NO: 11
216 <211> LENGTH: 41
217 <212> TYPE: DNA
218 <213> ORGANISM: Artificial Sequence
220 <220> FEATURE:
221 <223> OTHER INFORMATION: Exon 2 sense oligonucleotide primer
223 <400> SEQUENCE: 11
224  tgaagaagggt ctcaggagat accttcccgg atgcagatgc t                    41
226 <210> SEQ ID NO: 12
227 <211> LENGTH: 52
228 <212> TYPE: DNA
229 <213> ORGANISM: Artificial Sequence
231 <220> FEATURE:
232 <223> OTHER INFORMATION: Exon 2 antisense oligonucleotide primer
234 <400> SEQUENCE: 12
235  tgaagaagggt ctctctagaa ctctagcaaa ggctactgat ttcacttttg ct        52

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VERIFICATION SUMMARY

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L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:145 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:162 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:163 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:164 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:169 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6